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# Challenging Careers in Soil Conservation

#1298





COVER: SCS soil conservationists review conservation practices planned for this farm.

Soil conservationist (right) explains a conservation plan to a student and a teacher. SCS assists schools in planning outdoor classrooms.

# **Challenging Careers In Soil Conservation**

## **What Is the Soil Conservation Service?**

The Soil Conservation Service—SCS for short—is an agency in the United States Department of Agriculture.

We began our conservation work during the Dust Bowl days of the 1930's. A series of dust storms had just ravaged the Nation's farmland, stripping away millions of tons of top-soil. Huge dust clouds had carried the soil hundreds of miles, all the way into the Atlantic Ocean. Ever since that disaster, SCS has been trying to make Americans more aware of the need to protect our natural resources, especially soil and water.

The employees of SCS work with the local soil and water conservation districts to convince people to conserve the Nation's resources, then help them do it. Our voluntary programs are aimed at reducing erosion, keeping streams clear, protecting wildlife, and promoting good land use.

This pamphlet will give you an idea of the different kinds of conservation careers you can enter in the Soil Conservation Service. Each career is unique, but they all have one thing in common. They all require a commitment to conservation, to preserving the Nation's soil and water for future generations.

SCS offers career opportunities, whether you are still in college or have already graduated.

## Conservation Careers



### Soil Conservationists

SCS soil conservationists spend most of their time in the field working with farmers, ranchers, and other land users. They suggest ways to conserve the soil, build a farm pond, or cut down on water pollution.

Soil conservationists offer conservation planning and technical help to everyone from family farmers to land developers and local government offices. They help teachers start outdoor laboratories for the students. They give talks and slide programs to clubs and organizations. They write articles for local newspapers. Soil conservationists work at making all land users more aware of the need to conserve America's soil and water resources.

**Qualifications.** You can qualify as a soil conservationist if you have a college degree in soil conservation or a natural resource field such as agronomy, forestry, wildlife biology, agricultural education, or agricultural engineering.





## **Soil Conservation Technicians**

SCS soil conservation technicians assist soil conservationists. A technician's most important job is working with farmers, ranchers, and others on their lands. A technician tells them how to install the conservation practices needed and then oversees their installation.

The day-to-day work of conservation technicians includes making engineering surveys and designing standard conservation practices such as waterways, terraces, and contour stripcropping systems. Technicians make followup visits to check the progress and results of the practices installed and to update the land user's total conservation program.

**Qualifications.** You should have knowledge of farm or ranch operations. Education or work experience that makes you familiar with conservation practices is desirable.





### **Soil Scientists**

It's difficult to run a farm, build a housing development, or pave a highway without knowing something about soils. So farmers, commercial developers, and state and local planners all turn to soil scientists for information on soils.

SCS soil scientists map and classify soils. They identify problems such as wetness and erosion that can limit the ways a soil can be used. They identify soils on aerial photographs, write soil descriptions, and prepare other information about soils. They spend a lot of time in the field, but they also spend some time at the office.

**Qualifications.** You can qualify as a soil scientist if you have a college degree in soil science or a related field of biological, physical, or earth sciences. You must have 15 semester hours in soils.





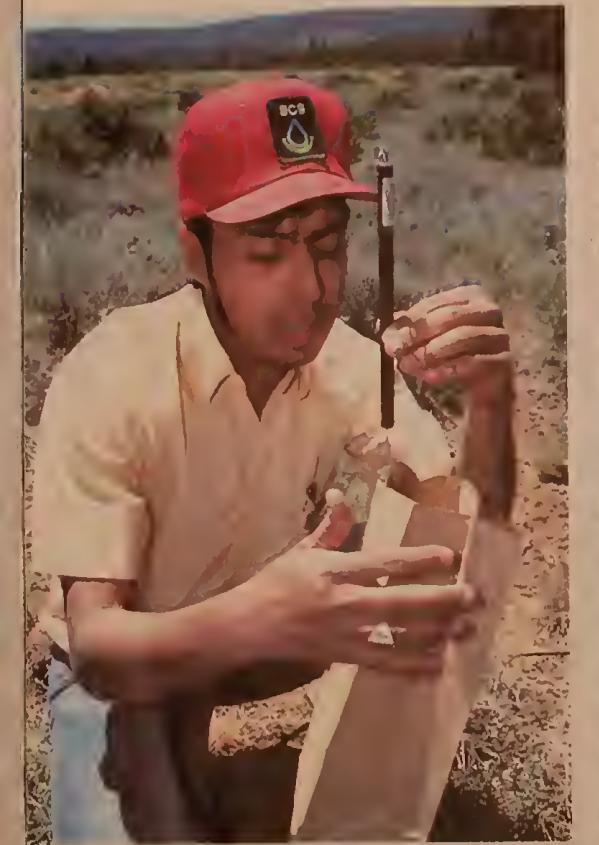
## Range Conservationists

Running a ranch is no simple matter. Sometimes water supplies run short, livestock overgraze pastures, or dense brush interferes with growing forage. Range conservationists help ranchers overcome these difficulties.

SCS range conservationists help plan grazing systems that increase production and prevent overgrazing. They can suggest ways to control brush. They can offer advice on water management or better ways to produce forage. Whether landowners want to use their rangeland to support livestock, wildlife, recreation, or a combination of these, range conservationists are ready to tailor conservation plans that will help the landowners meet their goals.

**Qualifications.** You can qualify as a range conservationist if you have a bachelor's degree in range management or a closely related field. Studies must have included courses in animal sciences, plant sciences, and soils.





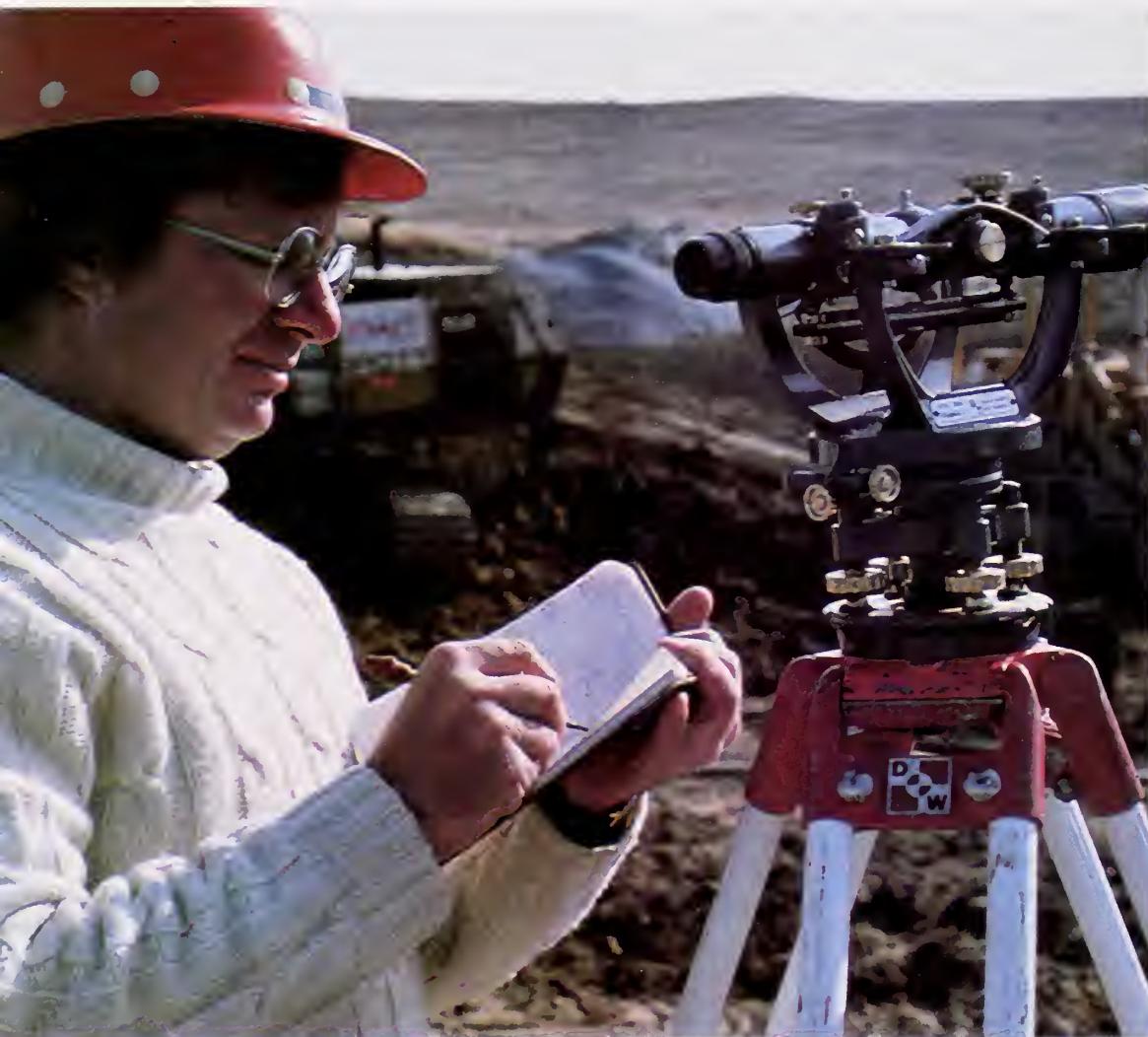
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## Engineers

Engineering is an integral part of successful resource conservation work. SCS employs a large number of engineers who are skilled in erosion control, water management, structural design, construction, hydraulics, soil mechanics, and environmental protection.

SCS engineers either specialize or work across the board. On large jobs a different engineer takes charge of each phase of the task. On small jobs one engineer does all the work from onsite planning to designing and overseeing construction. Job assignments are varied and include water supply systems, concrete and earthen dams, and streambank and channel erosion control.

**Qualifications.** To be hired as an engineer, you must have a bachelor's degree in engineering. Specialties can include agricultural, environmental, civil, and forestry engineering.





### **Engineering Technicians**

SCS engineering technicians assist engineers in planning, design, or construction work, but also work on their own. The jobs of a technician are as varied as those of an engineer.

Engineering technicians spend a lot of time outdoors helping with surveys, plotting notes, and laying out construction measures. They gather data, make computations, and prepare maps and cross sections of profiles. Some technicians serve as construction inspectors during the building of large structures used for such purposes as water storage, flood prevention, irrigation, and recreation.

**Qualifications.** You can qualify as an engineering technician if you have studied engineering in school, have experience on a survey crew running levels and transits, or have worked on construction, layout, and inspection. A sound knowledge of basic mathematics is desirable.





## Other Careers in Soil Conservation

The Soil Conservation Service also offers careers for people trained in:

- Accounting
- Agricultural economics
- Agronomy
- Aquatic biology
- Business administration
- Cartography
- Computer technology
- Contracting
- Forestry
- Geology
- Hydrology
- Information
- Landscape architecture
- Personnel
- Plant sciences
- Recreation
- Wildlife biology

FAR LEFT: SCS hydrologist tests for water quality.

LEFT: Plant material specialists measure growth on experimental plantings.

## Cooperative Education and Student Trainee Programs

Each year the Soil Conservation Service hires cooperative education students and student trainees. If you are still attending college or graduate school, you may qualify.

You alternate periods of work and study. You work for and learn from soil and range conservationists, engineers, soil scientists, and administrative specialists. You earn while you learn and you learn by doing.

If you do well, SCS can offer you a full-time career when you graduate.

For more information, contact your school's placement office or cooperative education department.



Colleges and universities have information about SCS cooperative education and student trainee programs.

## **Equal Opportunity**

The Soil Conservation Service is an equal opportunity employer. Applicants will be considered without regard to race, color, religion, sex, national origin, age, politics, physical handicap, or marital status.

## **Placement and Salary**

The Soil Conservation Service has over 3,000 field locations throughout the United States. So it is likely that there is a beginning opportunity in the state in which you want to work.

Starting salaries in the conservation career you choose are competitive with other government agencies and with private business.

## **Training and Advancement**

While in SCS you will get many chances for training. SCS wants you to set career goals and wants to help you reach them. On-the-job training is vital in every job. Formal training is also available to help you advance in your career.

Promotions are there for the earning—how fast and how far you advance depends on you. Advancement opportunities broaden as you broaden yourself with varied work assignments in different locations.

## **Employee Benefits**

### **Vacation, Sick Leave, and Disability**

During your first 3 years of service you earn 13 days of vacation leave each year. After 3 years you earn 20 days. After 15 years you earn 26 days.

Each year you earn 13 days of sick leave. You can accumulate this leave without limit to cover serious illnesses.

Special benefits are available if you are disabled or injured while working.

### **Health and Life Insurance**

The Government pays a substantial part of your health insurance costs. There are a variety of medical plans offered under this voluntary program.

Another voluntary program provides life insurance. The amount of insurance available to you depends on your salary. Again, the Government pays part of the cost.

## **For Job Information**

### **Retirement**

The Civil Service retirement plan will pay up to 80 percent of your salary once you retire. Your benefits will depend on how long you work for the Government. You must pay a part of your salary into the retirement fund.

For information on how you should apply, contact the Soil Conservation Service, P.O. Box 2890, Washington, D.C. 20013, or the SCS offices in the localities in which you would like to work. SCS offices are listed in telephone directories under U.S. Government, Agriculture, Soil Conservation Service.

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